Course Title:

Human Genetics & Society

Duration:

4 ECTS

Course overview:

In the time of rapid genetic advancements and innovations, understanding human genetics is not just a scientific necessity but a societal imperative. This interdisciplinary course aims to equip economics students with a comprehensive understanding of human genetics and its societal implications. The course covers everything from the fundamental principles of genetics to the ethical and economic ramifications of contemporary genetic technologies. Through a blend of lectures, hands-on practicals, and interactive research project, students will gain a nuanced understanding of this rapidly evolving field.

Course Objectives:

By the end of the course, students will be able to:

- Understand the fundamental concepts of human genetics, including DNA, genes, chromosomes, and heredity.
- Grasp the idea of GMO products, gene therapy and personalized medicine.
- Assess the impact of emerging genetic technologies on the global economy.
- Evaluate the ethical implications of genetic testing, gene editing, and data collection.
- Analyze how public opinion on genetic issues can be influenced and how this affects economic policies.
- Evaluate the potential benefits and concerns related to the contemporary genetic technologies.
- Debunk common myths and misconceptions in the field of human genetics.

Key Topics Covered:

- Basic concepts of human genetics: DNA, RNA, proteins, genes, and chromosomes.
- Ethical, Legal and Social Implications of Human Genetics.
- Read your own genome: Sequencing Technologies and Their Impact.
- GMOs: Boon or Bane for Global Security?
- The Economics of Personalized Medicine: Science, Health, and Market Dynamics
- From Genes to Society: The Multifaceted Impact of National Genome Projects.
- Societal perceptions on genetics and genomic technologies.

Teaching Methodology:

The course is designed to be interactive and participatory. Alongside lectures, students will engage in hands-on practicals (e.g., DNA and protein modeling), seminars, group discussions, and case study analyses. As part of the course, students will have the opportunity to undertake a small research project at the intersection of human genetics and societal issues of their interest. If the safety situation permits, students will also have the exceptional opportunity to attend a lab visit, where they will be able to observe firsthand the cutting-edge techniques and technologies used in genetic research.

Who Should Attend:

Students majoring in economics who wish to broaden their horizons by understanding the

Note:

This course is taught in simple academic language to accommodate non-native English speakers, ensuring clarity and comprehension for all participants.